

**EPIDEMIOLOGY AND TOXICOLOGY  
ACTIVITIES IN THE MICHIGAN  
DEPARTMENT OF AGRICULTURE AND  
RURAL DEVELOPMENT**

**COMMISSION MEETING  
APRIL 11, 2012**

**John Buchweitz, PhD  
Justin Henderson, MPH**

# MDARD's All Hazards Risk Management

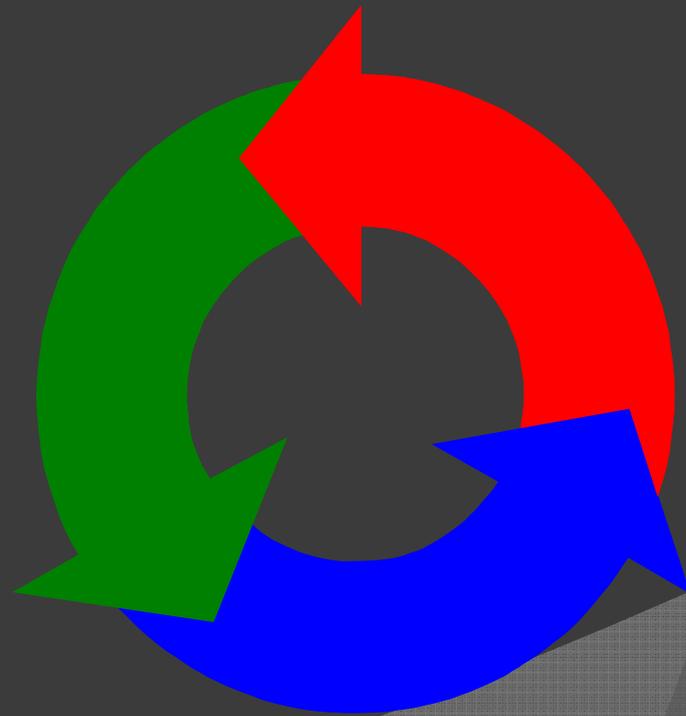
**Protection/Prevention**

**Preparedness**

**Response**

**Recovery**

**Mitigation**



# Epidemiologist Liaison

**Welcome: Justin Henderson, MPH**

**Justin will be coordinating public health and MDARD foodborne illness investigations**

# Multistate Outbreak of *E. coli* O157:H7 Infections Associated with In-shell Hazelnuts

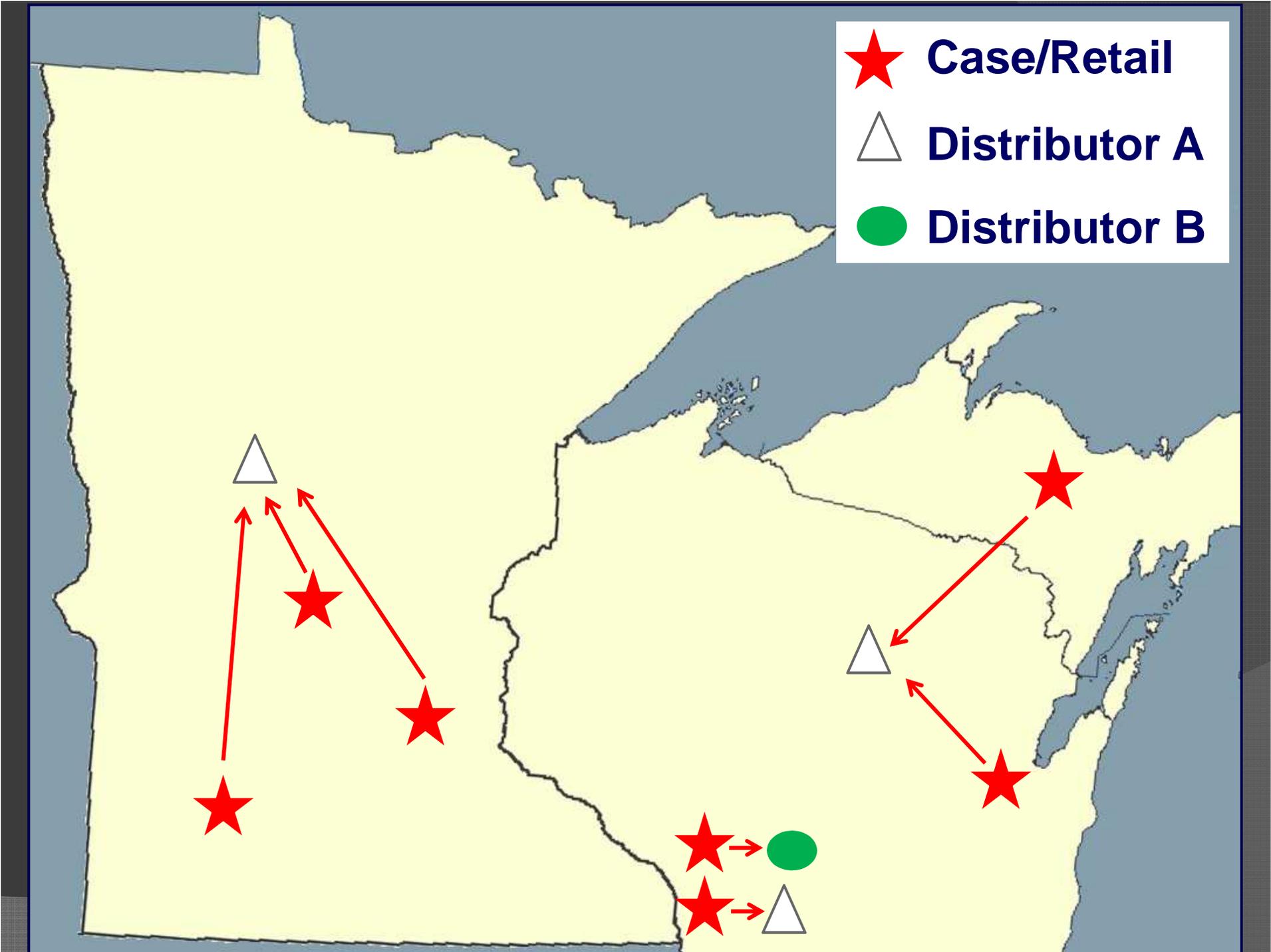


Source: MN Department of Agriculture

# Outbreak Summary

- Eight cases of *E. coli* O157:H7 were identified
  - Michigan (1), Minnesota (3), and Wisconsin (4)
- Illness onset dates: December 20, 2010 to February 16, 2011
- 50% hospitalized but no deaths
- All 6 reported eating in-shell mixed nuts or in shell hazelnuts (filbert)

- ★ **Case/Retail**
- △ **Distributor A**
- **Distributor B**



# Control Measures Implemented

- Nationwide recall of in-shell hazelnuts shipped by California distributor from November 2 through December 22
- Public advisories issued





# Effective Outbreak Investigations

- Early identification of sources
- Rapid placement of targeted control measures
- Maintain public confidence in our food supply
- Minimize “collateral damage” - economic losses to uninvolved food producers

# Toxicology Activities

**Engaging Stakeholders**

**Diagnostic Center**

**Working with  
Department Divisions**

# Toxicology Activities

## Engaging Stakeholders

- Presentations
- Workgroups
- Michigan's Communities





Image taken from web: unknown source

# Toxicology Activities

## Diagnostic Center

- Broad client base
- Extensive testing capabilities
- Opportunities to meld academic / service / regulatory environment



# Toxicology Activities

## Working with Department Divisions

- ⦿ Animal Industry Division
  - Companion / Equine / Livestock / Poultry
- ⦿ Pesticide and Plant Pest Management
  - Pesticides / Feed
- ⦿ Food and Dairy
- ⦿ Environmental Stewardship
  - Working with Industry
- ⦿ Emergency Management
  - Exercise Development